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expanding said cutting means from generally linear and axial orientation to a curved basket-like orientation by axial movement relative to said elongated member.

29. Apparatus of claim 26 wherein second ends of said cutting means are connected to said elongated means proximate said tissue piercing means.
30. Apparatus of claim 26 wherein said aseptic shield means is a flexible membrane.
31. Apparatus of claim 26 further comprising drawstring means for closing said shield about said cutting means and any target tissue mass contained therewithin.
32. Apparatus of claim 25 wherein at least said tissue piercing means portion of said apparatus is detectable fluoroscopically.
33. Apparatus of claim 25 wherein at least said tissue piercing means portion of said apparatus is detectable ultrasonically.
34. Apparatus of claim 25 wherein at least said tissue piercing means portion of said apparatus is detectable using mammographic x-ray.
35. Apparatus of claim 25 wherein at least said tissue piercing means portion of said apparatus is detectable tomographically.
36. Apparatus of claim 25 further comprising
- a. means for electrically heating said cutting means for cauterizingly cutting to detach the target tissue mass from surrounding tissue.
37. Apparatus of claim 36 further comprising

a. means for electrically energizing said cutting means for coagulating tissue around said target tissue mass during cutting.

a. means for rotating said cutting means.

40. Apparatus of claim 25 wherein said cutting means comprises a laser.

42. A method for excision of a sub-cutaneous target tissue mass through a cutaneous incision smaller than maximum transverse dimension of the tissue mass excised, comprising:

a. advancing tissue piercing means towards a patient to create an incision in the patients's skin;

b. slidably advancing cutting means through said incision and into sub-cutaneous tissue until in position to radially expand said cutting means and cut a circumferential swath around said target tissue mass larger than said incision;

c. cutting a circumferential swath around said target tissue mass thereby separating said target tissue mass from said surrounding tissue;

d. slidably advancing flexible aseptic containment means over said separated target tissue mass to a position of

closure around said target tissue mass;

- e. withdrawing said flexible aseptic containment means with said target tissue mass aseptically contained therewithin through said incision.
43. The method of claim 42 further comprising collapsing said cutting means after cutting said swath.
44. The method of claim 42 further comprising fluoroscopically guiding said tissue piercing means through said incision and into sub-cutaneous tissue until said cutting means is in position to cut a circumferential swath around said target tissue mass.
45. The method of claim 42 further comprising ultrasonographically guiding said tissue piercing means through said incision and into sub-cutaneous tissue until said cutting means is in position to cut a circumferential swath around said target tissue mass.
46. The method of claim 42 further comprising x-ray mammographically guiding said tissue piercing means through said incision and into sub-cutaneous tissue until said cutting means is in position to cut a circumferential swath around said target tissue mass.
47. The method of claim 42 further comprising computer-aided tomographically guiding said tissue piercing means through said incision and into sub-cutaneous tissue until said cutting means is in position to cut a circumferential swath around said target tissue mass.

48. The method of claim 42 wherein said cutting means is a laser.
49. The method of claim 42 wherein said cutting means includes a blade.
50. The method of claim 42 wherein said cutting means includes a cutting wire.
51. The method of claim 42 wherein said cutting means is cryogenic.
52. The method of claim 42 wherein said cutting means utilizes radiofrequency wave energy.
53. The method of claim 42 wherein said cutting means utilizes chemical ablation.
54. Apparatus for excision of a sub-cutaneous target tissue mass through a cutaneous incision smaller than maximum transverse dimension of the tissue mass excised, comprising:
- a. an axially elongated containment sheath having a resiliently expandable portion at one end thereof;
 - b. means insertable through said containment sheath for making said cutaneous incision;
 - c. a plurality of axially elongated support members insertable through said incision and said containment sheath and said incision into sub-cutaneous tissue, said support members being connected at their proximate ends, distal ends of said support members being unconnected to define a conical penumbra within said subcutaneous tissue;
 - d. means for resiliently expanding said support members into

- i. axially advancing a tissue cutting loop of hot wire through a support catheter in said containment sheath respecting said cone circumferentially around the slant surface of said conical penumbra; while
 - ii. advancing additional loop length out of said catheter within said containment sheath to provide sufficient length for said loop to extend in circular fashion around the circumference of said cone on said slant surface parallel to the cone base; while
 - iii. advancing said support catheter through said containment sheath along the slant surface of said conical penumbra to maintain the outlet of said support catheter via which said loop is advanced adjacent to said loop at any location along said slant surface of said cone;
- until said tissue cutting loop reaches the cone base;
- d. while maintaining said catheter outlet at said cone base drawing said wire into said catheter resident in said containment sheath to eliminate the loop and cut through tissue in the shape of a cone base;
 - e. withdrawing said catheter and the enclosed wire from the patient through said containment sheath;
 - f. sliding a tissue containment bag through said containment sheath and along said conical support to reach the base

of said cone;

- g. pulling ^{AT LEAST ONE} drawstrings threaded through the periphery of said bag at said cone base through said containment sheath to close said bag about said previously resected specimen;
- h. pulling said bag with said resected specimen therewithin into said expandable portion of said containment sheath thereby causing said sheath to expand and compress said specimen within said bag to smaller size;
- i. continuing pulling said bag with said compressed specimen therewithin through the remainder of said containment sheath and out of said patient.

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